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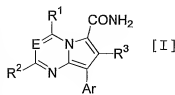
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(54) Title: **PYRROLOPYRIMIDINE AND PYRROLOTRIAZINE DERIVATIVES AS CRF RECEPTOR ANTAGONISTS**



pyrrolopyrimidine or pyrrolotriazine derivative substituted with a carbamoyl group represented by the following formula [I]: has a high affinity for CRF receptors and is effective against diseases in which CRF is considered to be involved.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP2005/000319

A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98/35967 A (NEUROCRINE BIOSCIENCES, INC; MCCARTHY, JAMES, R) 20 August 1998 (1998-08-20) cited in the application the whole document -----	1-9
Y	WO 98/08847 A (PFIZER INC; CHEN, YUHPYNG, LIANG) 5 March 1998 (1998-03-05) the whole document -----	1-9
Y	EP 0 729 758 A (PFIZER INC) 4 September 1996 (1996-09-04) the whole document -----	1-9

☐ Further documents are listed in the continuation of box C

☒ Patent family members are listed in annex

* Special categories of cited documents

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

G document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9835967	A	20-08-1998	AU 6279598 A	08-09-1998
			CA 2281525 A1	20-08-1998
			EP 0970082 A2	12-01-2000
			JP 2001511813 T	14-08-2001
			WO 9835967 A2	20-08-1998
			US 6352990 B1	05-03-2002
			US 2002049207 A1	25-04-2002

WO 9808847	A	05-03-1998	AP 762 A	13-09-1999
			AU 735401 B2	05-07-2001
			AU 3456197 A	19-03-1998
			BG 103189 A	30-09-1999
			BR 9711970 A	24-08-1999
			CA 2263566 A1	05-03-1998
			CN 1227554 A	01-09-1999
			CZ 9900681 A3	17-11-1999
			EA 2769 B1	29-08-2002
			EP 0923582 A1	23-06-1999
			HR 970454 A1	31-08-1998
			HU 9903965 A2	28-03-2000
			WO 9808847 A1	05-03-1998
			ID 18249 A	19-03-1998
			JP 2000502723 T	07-03-2000
			JP 3621706 B2	16-02-2005
			JP 2005047930 A	24-02-2005
			KR 2000035934 A	26-06-2000
			NO 990927 A	26-02-1999
			NZ 333302 A	25-08-2000
			OA 10977 A	02-11-2001
			PL 332040 A1	16-08-1999
			SK 23399 A3	14-08-2000
			TR 9900389 T2	21-06-2000
			TW 575573 B	11-02-2004
			US 2002151713 A1	17-10-2002
			US 2005009823 A1	13-01-2005
			ZA 9707687 A	01-03-1999

EP 0729758	A	04-09-1996	AU 715380 B2	03-02-2000
			AU 4585996 A	12-09-1996
			CA 2170700 A1	03-09-1996
			CN 1141297 A ,C	29-01-1997
			EP 0729758 A2	04-09-1996
			IL 117229 A	12-02-2003
			JP 8259567 A	08-10-1996
			NZ 286103 A	25-08-2000
			ZA 9601696 A	01-09-1997